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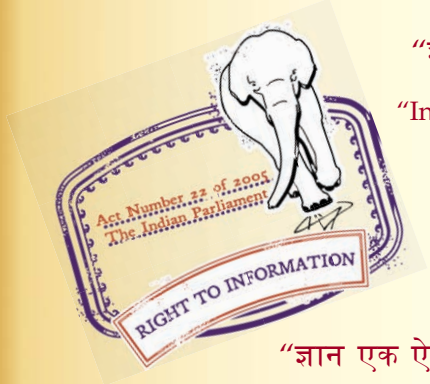

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भाग 4 परिसीमन साइज

(पहला पुनरीक्षण)

Indian Standard

ISO MINIATURE SCREW THREADS

PART 4 LIMITS OF SIZES

(First Revision)

ICS 21.040.10

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

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Price Group 2

FOREWORD

This Indian Standard (Part 4) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Engineering Standards Sectional Committee had been approved by the Medical Instruments, General and Production Engineering Division Council.

This standard was first published in 1986 and was based on ISO/R 1501 : 1970 'Miniature screw threads' and DIN 14 - Part 4 : 1987 'ISO metric screw thread — Screw threads under 1 mm diameter — Part 4 : Limiting sizes'. ISO/R 1501 : 1970 has been withdrawn and DIN 14 - Part 4 has been revised in 1987. Therefore, this standard has been revised and aligned with DIN 14 - Part 4 : 1987 'ISO metric screw threads — Screw threads under 1 mm diameter — Part 4 : Limiting sizes', issued by the Deutsches Institut für Normung (DIN).

This standard is one of the series of Indian Standards on miniature screw threads and being published in four parts. The other parts in the series are as given follows:

Part 1 Basic profile

Part 2 Basic dimensions for design profile

Part 3 Tolerances

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

ISO MINIATURE SCREW THREADS

PART 4 LIMITS OF SIZES

(First Revision)

1 SCOPE

This standard (Part 4) covers the limits of sizes for ISO miniature screw threads in the diameter range less than 1 mm.

2 REFERENCE

The following standard contains provisions which through reference in this text, constitutes provisions of this standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below:

IS No.	*Title*
11698 (Part 3) : 2004	ISO miniature screw threads: Part 3 Tolerances *(first revision)*

3 TERMINOLOGY

For the purpose of this standard terminology given in IS 11698 (Part 3) shall apply.

4 LIMITS OF SIZES

4.1 Nut Threads

4.1.1 *With Zero Fundamental Deviation and Tolerances* 4H5H

Dimensions of the nut threads shall be as given in Table 1.

4.1.2 *With Zero Fundamental Deviation and Tolerances* 4H6H

Dimensions of the nut threads shall be as given in Table 2.

4.1.3 *With Positive Fundamental Deviation and Tolerances* 3G5H

Dimensions of the nut threads shall be as given in Table 3.

4.1.4 *With Positive Fundamental Deviation and Tolerances* 3G6H

Dimensions of the nut threads shall be as given in Table 4.

4.2 Bolts Threads

4.2.1 *With Zero Fundamental Deviation and Tolerances* 5h3h

Dimensions of the bolt threads with tolerance grade 5h3h shall be as given in Table 5.

Table 1 Nut Threads with Zero Fundamental Deviation (Tolerance 4H5H)

(*Clause* 4.1.1)

All dimensions in millimetres.

Sl No.	Thread Nominal Diameter	Pitch *P*	Major Diameter *D*		Pitch Diameter D_2		Minor Diameter D_1	
			Min	*Max*	*Min*	*Max*	*Min*	*Max*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	0.3	0.08	0.300	Not specified	0.248	0.268	0.223	0.240
ii)	0.35	0.09	0.350		0.292	0.314	0.264	0.286
iii)	0.4	0.1	0.400		0.335	0.359	0.304	0.330
iv)	0.5	0.125	0.500		0.419	0.445	0.380	0.415
v)	0.6	0.15	0.600		0.503	0.531	0.456	0.502
vi)	0.7	0.175	0.700		0.586	0.618	0.532	0.585
vii)	0.8	0.2	0.800		0.670	0.706	0.608	0.665
viii)	0.9	0.225	0.900		0.754	0.794	0.684	0.745

Table 2 Nut Threads with Zero Fundamental Deviation (Tolerance 4H6H)

(*Clause* 4.1.2)

All dimensions in millimetres.

Sl No.	Thread Nominal Diameter	Pitch *P*	Major Diameter *D*		Pitch Diameter D_2		Minor Diameter D_1	
			Min	*Max*	*Min*	*Max*	*Min*	*Max*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	(0.3)	0.08	0.300	Not specified	0.248	0.268	0.223	0.246
ii)	(0.35)	0.09	0.350		0.292	0.314	0.264	0.298
iii)	0.4	0.1	0.400		0.335	0.359	0.304	0.342
iv)	0.5	0.125	0.500		0.419	0.445	0.380	0.435
v)	0.6	0.15	0.600		0.503	0.531	0.456	0.522
vi)	0.7	0.175	0.700		0.586	0.618	0.532	0.605
vii)	0.8	0.2	0.800		0.670	0.706	0.608	0.685
viii)	0.9	0.225	0.900		0.754	0.794	0.684	0.765

NOTE — Threads within brackets shall be avoided since it provides smaller overlapping of pitch diameter.

Table 3 Nut Threads with Positive Fundamental Deviation (Tolerance 3G5H)

(*Clause* 4.1.3)

All dimensions in millimetres.

Sl No.	Thread Nominal Diameter	Pitch *P*	Major Diameter *D*		Pitch Diameter D_2		Minor Diameter D_1	
			Min	*Max*	*Min*	*Max*	*Min*	*Max*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	0.3	0.08	0.306	Not specified	0.254	0.268	0.223	0.240
ii)	0.35	0.09	0.356		0.298	0.314	0.264	0.286
iii)	0.4	0.1	0.406		0.341	0.359	0.304	0.330
iv)	0.5	0.125	0.508		0.427	0.445	0.380	0.415
v)	0.6	0.15	0.608		0.511	0.531	0.456	0.502
vi)	0.7	0.175	0.710		0.596	0.618	0.532	0.585
vii)	0.8	0.2	0.810		0.680	0.706	0.608	0.665
viii)	0.9	0.225	0.910		0.764	0.794	0.684	0.745

Table 4 Nut Threads with Positive Fundamental Deviation (Tolerance 3G6H)

(*Clause* 4.1.4)

All dimensions in millimetres.

Sl No.	Thread Nominal Diameter	Pitch *P*	Major Diameter *D*		Pitch Diameter D_2		Minor Diameter D_1	
			Min	*Max*	*Min*	*Max*	*Min*	*Max*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	(0.3)	0.08	0.306	Not specified	0.254	0.268	0.223	0.246
ii)	(0.35)	0.09	0.356		0.298	0.314	0.264	0.298
iii)	0.4	0.1	0.406		0.341	0.359	0.304	0.342
iv)	0.5	0.125	0.508		0.427	0.445	0.380	0.435
v)	0.6	0.15	0.608		0.511	0.531	0.456	0.522
vi)	0.7	0.175	0.710		0.596	0.618	0.532	0.605
vii)	0.8	0.2	0.810		0.680	0.706	0.608	0.685
viii)	0.9	0.225	0.910		0.764	0.794	0.684	0.765

NOTE — Threads within brackets shall be avoided since it provides smaller overlapping of pitch diameter.

Table 5 Bolt Threads (Tolerance 5h3h)

(*Clause* 4.2)

All dimensions in millimetres.

Sl No.	Thread Nominal Diameter	Pitch *P*	Major Diameter *d*		Pitch Diameter d_2		Minor Diameter d_3	
			Min	*Max*	*Min*	*Max*	*Min*	*Max*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	0.3	0.08	0.300	0.284	0.248	0.228	0.210	0.190
ii)	0.35	0.09	0.350	0.332	0.292	0.270	0.249	0.227
iii)	0.4	0.1	0.400	0.380	0.335	0.311	0.288	0.264
iv)	0.5	0.125	0.500	0.480	0.419	0.393	0.360	0.332
v)	0.6	0.15	0.600	0.575	0.503	0.475	0.432	0.400
vi)	0.7	0.175	0.700	0.675	0.586	0.554	0.504	0.468
vii)	0.8	0.2	0.800	0.770	0.670	0.634	0.676	0.536
viii)	0.9	0.225	0.900	0.870	0.754	0.714	0.648	0.604

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones: 2323 0131, 2323 3375, 2323 9402 *website* : www.bis.org.in

Regional Offices:		Telephones
Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002	2323 7617, 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi, KOLKATA 700054	2337 8499, 2337 8561, 2337 8626, 2337 9120
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160022	260 3843, 260 9285
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